UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/796,042 | 03/10/2004 | Wayd A. McNally | 16385-US | 2741 |

23553 7590 04/16/2008

MARKS & CLERK
P.O. BOX 957
STATION B
OTTAWA, ON K1P 5S7
CANADA

| EXAMINER | |
|---|---|
| FAYYAZ, NASHMIYA SAQIB | |
| **ART UNIT** | **PAPER NUMBER** |
| 2856 | |

| MAIL DATE | DELIVERY MODE |
|---|---|
| 04/16/2008 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/796,042 | MCNALLY, WAYD A. | |
| | Examiner | Art Unit | |
| | Nashmiya S. Fayyaz | 2856 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *29 January 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-40* is/are pending in the application.

4a) Of the above claim(s) *2 and 9-39* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) *1, 3-8 and 40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 3-6 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roche et al- US Patent # 6,830,650. As to claims 1 and 40, Roche et al disclose a diagnostic probe (14) (comprised of a silicon wafer substrate) and associated method for measuring processing environment conditions including enclosure (58) on the wafer probe (14) and thereby **together**, *as a whole*, emulating a “wafer”, a plurality of sensors (48,50,52) for monitoring for conditions, a processor (64) and wireless radio transceiver (72 with radio antenna 70), see Fig. 3 and col. 6, lines 13 et seq. Note the implementation

procedure in col. 10, lines 43 et seq. indicating data collection at pulsed intervals in accordance with fig. 9. Further, it is noted that a wireless receiver has not been depicted. However, given that the transceiver 72 is wireless, it would have been obvious to one of ordinary skill in the art at the time of the invention to have included a wireless receiver to receive the signals transmitted from the wireless transceiver as also depicted in the fig. 1 embodiment as transceiver 38. As to claim 3, the probe is in the shape of a wafer and simulates the height, note "4)" in col. 13. As to claim 4, note "3)" in col. 13 which indicates *hermetically sealing* the packaging and usage of two enclosure *portions* (a left and a right portion or a top and a bottom portion would meet this limitation) would have been obvious given that in order to seal the package with the electronics inside, there would have to be 2 enclosure portions, at least along with retaining means to maintain the hermetic sealing. As to claim 5, note that the electronics are depicted on a wafer 14, note fig. 2a where and transceiver system 36 is indicated as "on-board" suggesting a plurality of printed circuit boards for the electronics found on the wafer. As to claim 6, Roche et al include a temperature sensor 50.

3. Claims 1, 3, 6-8 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vock et al- US Patent # 7,174,277. As to claims 1 and 40, Vock et al disclose system 866 and associated method for monitoring environmental conditions including an enclosure (package 867) which may be embedded with other packages during processing (shipping), a plurality of

sensors (device 840/865) for monitoring environmental conditions continuously from within the package, a processor 848 and a wireless receiver 850, see figs. 53 and 54 and col. 52, lines 49 et seq. Further, it is noted that Vock et al do not specifically identify a radio transceiver or that the processor derives a parameter value from the sensor measurements. However, it is noted that Vock et al does indicate the data is wirelessly communicated as wireless data 863. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have included a wireless transceiver in order to accomplish the recited wireless communications since it is known to use wireless transceivers for wireless transmissions and communications port 854 is depicted in fig. 53. As to usage of the processor to derive a parameter value, it is indicated that the processor serves to manage and control the device 840, see col. 53, lines 10-11. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have realized that any processing of the signals would be done in the processor since it is recited as the managing and control device. As to claim 3, the shape of the enclosure is a package as is used in shipping. As to claim 6, Vock et al indicates monitoring impact and temperature, etc. see col. 53, lines 13-25. As to claim 7, note col. 2, lines 8-17. As to claim 8, Vock et al fail to specify what kind of impact sensors are employed. However, in a different embodiment of fig. 39, Vock et al specify usage of a three axis accelerometer 510 to measure impacts. Therefore, it would have been obvious to one of

ordinary skill in the art at the time of the invention to have specified the impact sensor in the embodiment of fig. 53-54 as a 3 axis accelerometer given the prior teaching of such usage in the fig. 39 embodiment to give a more thorough assessment of the impact and the directional aspects.

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the enclosure, the 2 portions, the retaining means and the printed circuit boards must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet”

pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Response to Arguments***

5. Applicant's arguments filed 1/29/08 have been fully considered but they are not persuasive. Applicant has argued 1) that the Roche device does not mimic the workpiece but rather is placed adjacent the article; 2) the device of claim 1 includes an enclosure designed to emulate the physical configuration of the article; 3) the Roche enclosure is merely a protective package; 4) as in claim 4, there are not 2 portions taught; 5) reasons for obviousness of claim 5 are not provided 6) as to claims 7 and 8, reasons are not provided for obviousness; 7) with regard to claim 40 method, the features are not specified; 8) in the Vock device, the package 867 is not the enclosure of the monitoring device but rather is the package of the product to which the monitoring device is attached

**6.** Such arguments are not found persuasive because 1) the Roche probe 14 of with the enclosure 58 is in the form of a wafer and therefore the wafer probe having enclosure 58 is emulating a wafer; 2) again it is noted that the entire wafer probe 14 can be designated as the *enclosure* which is emulating a wafer; 3) enclosure 58 in Roche may be a protective package but the entire probe 14 along with enclosure 58 emulates the wafer; 4) please note that the designation of “two portions” can be applicable to a top and bottom portion or a left and right

portion and since there is a reference by Roche to “hermetically sealing”, this is a clear indication that there are separable portions which need hermetic sealing to eliminate external influences; 5) as in claim 5, there is merely a designation of a plurality of printed circuit boards where the designation of "on-board" wireless transceiver system 36 seems to suggest that the electronics are on a plurality of circuit boards; 6) claims 7 and 8 were not rejected in view of Roche; 7) with regard to claim 40, the features appear to be the same structural features of claim 1 and therefore are not repeated and further, the procedural steps are found in the discussion of col. 10, lines 43 et seq.; 8) Vock teaches employing a package 867 which does not require that goods be in the package and it is noted that the claim merely recites that the "enclosure" be designed to emulate so as to allow embedding within the same environment and sensors embedded within the enclosure so that a simple **box** for shipping with sensors in it meets the claimed limitation. Also, there is no indication in the claims that the enclosure cannot hold other elements within it. **Further, it is noted that applicant has argued the significance of the “enclosure” and how it emulates the articles and it’s configuration of two enclosure portions with retaining means and including printed circuit boards. However, it stressed that there is no depiction of such an enclosure or it's 2 portions and retaining means or printed circuit boards in the original specification from which such significance can be determined.**

***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nashmiya S. Fayyaz whose telephone number is 571-272-2192. The examiner can normally be reached on Mondays and Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron E. Williams can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. S. F./
Examiner, Art Unit 2856

/Hezron Williams/
Supervisory Patent Examiner, Art Unit 2856